



PCT

RAW SEQUENCE LISTING

DATE: 03/04/2003

PATENT APPLICATION: US/10/070,241B

TIME: 13:30:38

Input Set : A:\57132463.app

Output Set : N:\CRF4\03042003\J070241B.raw

```

4 110  APPLICANT: WATANABE, TAKUYA
5      KIKUCHI, KUNIKO
6      SHINTANI, YASUSHI
8 120  TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTOR PROTEIN
9      AND DNA THEREOF
11 130  FILE REFERENCE: 57132(46542)
12 140  CURRENT APPLICATION NUMBER: 10/070,241B
13 141  CURRENT FILING DATE: 2003-02-27
14 150  PRIOR APPLICATION NUMBER: JP 11-241530
15 151  PRIOR FILING DATE: 1999-06-27
16 160  NUMBER OF SEQ ID NOS: 1
17 210  SEQ ID NO: 1
18 211  LENGTH: 431
19 212  TYPE: PRT
20 213  ORGANISM: Homo sapiens
21 240  SEQUENCE: 1
22 Met Gln Ala Leu Asn Ile Thr Pro Glu Gln Phe Ser Arg Leu Leu Arg
23 1      5      11      15
24 Asp His Asn Leu Thr Arg Glu Gln Phe Ile Ala Leu Tyr Arg Leu Arg
25 21      25      30
26 Pro Leu Val Tyr Thr Pro Glu Leu Pro Gly Arg Ala Lys Leu Ala Leu
27 31      35      40
28 Val Leu Thr Gly Val Leu Ile Phe Ala Leu Ala Leu Phe Gly Asn Ala
29 41      45      50
30 Leu Val Phe Tyr Val Val Thr Arg Ser Lys Ala Met Arg Thr Val Thr
31 51      55      60
32 Asn Ile Phe Ile Cys Ser Leu Ala Leu Ser Asp Leu Leu Ile Thr Phe
33 61      65      70
34 Phe Cys Ile Pro Val Thr Met Leu Gln Asn Ile Ser Asp Asn Trp Leu
35 71      75      80
36 Gly Gly Ala Phe Ile Cys Lys Met Val Pro Phe Val Gln Ser Thr Ala
37 81      85      90
38 Val Val Thr Glu Ile Leu Thr Met Thr Cys Ile Ala Val Glu Arg His
39 91      95      100
40 Gln Gly Leu Val His Pro Phe Lys Met Lys Trp Gln Tyr Thr Asn Arg
41 101     105     110
42 Arg Ala Phe Thr Met Leu Gly Val Val Trp Leu Val Ala Val Ile Val
43 111     115     120
44 Gly Ser Pro Met Trp His Val Gln Gln Leu Glu Ile Lys Tyr Asp Phe
45 121     125     130
46 Leu Tyr Glu Lys Glu His Ile Cys Cys Leu Glu Glu Trp Thr Ser Pro
47 131     135     140
48 Val His Gln Lys Ile Tyr Thr Thr Phe Ile Leu Val Ile Leu Phe Leu
49 141     145     150

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67      210      215      220
69 Leu Pro Leu Met Val Met Leu Ile Leu Tyr Ser Lys Ile Gly Tyr Glu
70      225      230      235      240
71 Leu Trp Ile Lys Lys Arg Val Gly Asp Gly Ser Val Leu Arg Thr Ile
72      245      250      255
73 His Gly Lys Gln Met Ser Lys Ile Ala Arg Lys Lys Lys Arg Ala Val
74      260      265      270
75 Ile Met Met Val Thr Val Val Ala Leu Phe Ala Val Cys Trp Ala Pro
76      275      280      285
81 Phe His Val Val His Met Met Ile Glu Tyr Ser Asn Phe Glu Lys Glu
82      290      295      300
84 Tyr Arg Asp Val Thr Ile Lys Met Ile Phe Ala Ile Val Gln Ile Ile
85      305      310      315      320
87 Gly Phe Ser Asn Ser Ile Cys Asn Pro Ile Val Tyr Ala Phe Met Asn
88      325      330      335
90 Glu Asn Phe Lys Lys Asn Val Leu Ser Ala Val Cys Tyr Cys Ile Val
91      340      345      350
93 Asn Lys Thr Phe Ser Pro Ala Gln Arg His Gly Asn Ser Gly Ile Thr
94      355      360      365
96 Met Met Arg Lys Lys Ala Lys Phe Ser Leu Arg Glu Asn Pro Val Glu
97      370      375      380
99 Glu Thr Lys Gly Glu Ala Phe Ser Asp Gly Asn Ile Glu Val Lys Leu
100      385      390      395      400
102 Lys Glu Gln Thr Glu Glu Lys Lys Lys Leu Lys Arg His Leu Ala Leu
103      405      410      415
105 Phe Arg Ser Glu Leu Ala Glu Asn Ser Pro Leu Asp Ser Gly His
106      420      425      430
109 <118> SEQ ID NO: 1
110 <118> LENGTH: 2415
111 <118> TYPE: CNA
112 <118> ORGANISM: Homo sapiens
113 <118> FEATURE:
114 <118> NAME/KEY: CDS
115 <118> LOCATION: (354)..(1646)
116 <118> FEATURE:
W--> 119 <221> NAME/KEY: modified_base
120 <118> LOCATION: (1227)
121 <118> OTHER INFORMATION: a, t, c, g, other or unknown
122 <118> FEATURE:
W--> 124 <221> NAME/KEY: modified_base
125 <118> LOCATION: (1646)
126 <118> OTHER INFORMATION: a, t, c, g, other or unknown
127 <118> FEATURE:
W--> 129 <221> NAME/KEY: modified_base
130 <118> LOCATION: (1371)
131 <118> OTHER INFORMATION: a, t, c, g, other or unknown
132 <118> SEQUENCE: 1
133 gccagaggcg ccaggacact agcgtggcgc tccagcaacc cagaccgtgg cggcgctcgc 60
134 ctttagggaa gagcaaggga agaactttat ttgaaccgcg aacatttttt ggtcactgag 120

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/070,241B

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Input Set : A:\57132463.app

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128 atcgagtcctc ccagtgcttt gggtctccgc ctctttatcg tgggtttgat cccgagctg 1-0
147 ctctcttttc ccgaacctcc cggagtgcag cctagagccc tcccgccggg ctgaactccag 1-0
14 agtagaggaa ggg-gggggg ctg-ggtggg tcccccgaag cctcgctgc ccccgagctg 1-0
144 cggatggcca ggcagtagcg ggcgtgggc ccgagtcctg gtagcgacaa gca atg 1-0
145 Met
146 1
147 cag ggc ctt aac att acc ccg gag cag ttc tct cgg ctg ctg cgg gac 4-0
148 Gln Ala Leu Asn Ile Thr Pro Glu Gln Phe Ser Arg Leu Leu Arg Asp
149 5 10 15
150 cag aac ctg aag cgg gag cag ttc atc gct ctg ttc cgg ctg cga ccc 4-0
151 His Asn Leu Thr Arg Glu Gln Phe Ile Ala Leu Tyr Arg Leu Arg Pro
152 20 25 30
153 ctg gtc tac acc cca gag ctg ccg gga cgc gcc aag ctg gcc ctg gtc 5-0
154 Leu Val Tyr Thr Pro Glu Leu Pro Gly Arg Ala Lys Leu Ala Leu Val
155 35 40 45
156 ctg acc ggc gtg ctg atc ttc gcc ctg ggc ctg ttt ggc aat gct ctg 5-0
157 Leu Thr Gly Val Leu Ile Phe Ala Leu Ala Leu Phe Gly Asn Ala Leu
158 50 55 60 65
159 gtg ttc tac gtg gtc acc ccg agc aag gcc atg ctg acc gtc acc aac 5-0
160 Val Phe Tyr Val Val Thr Arg Ser Lys Ala Met Arg Thr Val Thr Asn
161 70 75 80 85
162 atc ttt atc tgc ttc ttg gag ctg agt gac ctg ctg atc acc ttc ttc 6-0
163 Ile Phe Ile Cys Ser Leu Ala Leu Ser Asp Leu Leu Ile Thr Phe Phe
164 90 95
165 tgc att cca gtc acc atg ctg ccg aac att tac gac aac tgg ctg ggg 6-0
166 Cys Ile Pro Val Thr Met Leu Gln Asn Ile Ser Asp Asn Trp Leu Gly
167 100 105 110
168 ggt gct ttc att tgc aag atg gtg cca ttt gtc ccg tct acc gct gtt 7-0
169 Gly Ala Phe Ile Cys Lys Met Val Pro Phe Val Gln Ser Thr Ala Val
170 115 120 125
171 gtg aca gaa atc ctg aat atg acc tgc att gct gtg gaa agg cag ccg 7-0
172 Val Thr Glu Ile Leu Thr Met Thr Cys Ile Ala Val Glu Arg His Gln
173 130 135 140 145
174 gga ctt gtg cat cct ttt aac arg aag tgg caa tac acc aac cga agg 8-0
175 Gly Leu Val His Pro Phe Lys Met Lys Trp Gln Tyr Thr Asn Arg Arg
176 150 155 160
177 gct ttc aca atg cta ggt ggc gtc tgg ctg ggc gca gtc atc gta gga 8-0
178 Ala Phe Thr Met Leu Gly Val Val Trp Leu Val Ala Val Ile Val Gly
179 165 170 175
180 tca ccc atg tgg cag gtg caa caa ctt gag atc aaa tat gac ttc cta 9-0
181 Ser Pro Met Trp His Val Gln Gln Leu Glu Ile Lys Tyr Asp Phe Leu
182 180 185 190
183 tat gaa aag gaa cag atc tgc tgc tta gaa gag tgg acc agc cct gtg 9-0
184 Tyr Glu Lys Glu His Ile Cys Cys Leu Glu Glu Trp Thr Ser Pro Val
185 195 200 205
186 cag cag aag atc tac acc acc ttc atc ctt gtc atc ctg ttc ctg ctg 10-0
187 His Gln Lys Ile Tyr Thr Thr Phe Ile Leu Val Ile Leu Phe Leu Leu
188 210 215 220 225
189 cct ctt atg gtg atg ctt att ctg tac agt aaa att ggt tat gaa ctt 10-0
190 225 230 235

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RAW SEQUENCE LISTING

DATE: 03/04/2003

PATENT APPLICATION: US/10/070,241B

TIME: 15:30:33

Input Set : A:\57132463.app

Output Set: N:\CRF4\03042003\J070241B.raw

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235 Pro Leu Met Val Met Leu Ile Leu Tyr Ser Lys Ile Gly Tyr Glu Leu
236          231          235          240
237 tgg ata aag aaa aga gtt ggg gat ggt tca gag ctt agt att att 1124
238 Trp Ile Lys Lys Arg Val Gly Asp Gly Ser Val Leu Arg Thr Ile His
239          245          250          255
240 gga aaa aaa atg tcc aaa ata ggc agg aag aag aaa aga ggt gtc att 1173
241 Gly Lys Glu Met Ser Lys Ile Ala Arg Lys Lys Lys Arg Ala Val Ile
242          260          265          270
243 atg atg ttg aca atg ttg ggt ttc ttt ggt ttg ttc tgg gca cca ttc 1220
244 Met Met Val Thr Val Val Ala Leu Phe Ala Val Cys Trp Ala Pro Phe
245          275          280          285
246 cat gtt gtc cat atg atg att gaa tac agt aat ttt gaa aag gaa tat 1268
247 His Val Val His Met Met Ile Glu Tyr Ser Asn Phe Glu Lys Glu Tyr
248          290          295          300          305
249 gat gat gtc aca atc aag atg att ttt ggt atc ttg caa att att gga 1316
250 Asp Asp Val Thr Ile Lys Met Ile Phe Ala Ile Val Glu Ile Ile Gly
251          310          315          320
252 ttt tcc aac ttc atc tct aat cca att gtc tat gca ttc atg aat gaa 1364
253 Phe Ser Asn Ser Ile Cys Asn Pro Ile Val Tyr Ala Phe Met Asn Glu
254          325          330          335
255 aac ttc aaa aaa aat gtt ttg tct gca gtt tct tat tgg ata gta aat 1412
256 Asn Phe Lys Lys Asn Val Leu Ser Ala Val Cys Tyr Cys Ile Val Asn
257          340          345          350
258 aac ttc tct tcc gca caa agt cat gga aat tca gga att aca atg 1460
259 Lys Thr Phe Ser Pro Ala Glu Arg His Gly Asn Ser Gly Ile Thr Met
260          355          360          365
261 atg cgg aag aca gca aag ttt tcc atc aca gag aat cca ttg gag gaa 1508
262 Met Arg Lys Lys Ala Lys Phe Ser Leu Arg Glu Asn Pro Val Glu Glu
263          370          375          380          385
264 acc aac aga gaa gca ttc agt gat ggc aac att gaa gtc aac ttg tgt 1556
265 Thr Lys Gly Glu Ala Phe Ser Arg Gly Asn Ile Glu Val Lys Leu Cys
266          390          395          400
267 gaa cag aca gag gag aag aac aag ctc aac cga cat ctt gct ctc tct 1604
268 Glu Gln Thr Glu Glu Lys Lys Lys Leu Lys Arg His Leu Ala Leu Phe
269          405          410          415
270 agg tct aac ttg gct gag aat tct cct tta gac att ggt cat 1652
271 Arg Ser Glu Leu Ala Glu Asn Ser Pro Leu Asp Ser Gly His
272          420          425          430
273 taattataac aaattttcca taatttaattgc ccttcagatt gtaacccaaa gagaaaatta 1700
274 ttttgagcaa aggtcaaatc ctcttttaatt ccttaagatg atgacaaaga gaaaacaaat 1760
275 catgttttcca ttaaaaaatg acacgagggt agtccaaagt cagtgaatgt tacaacaaat 1820
W--> 262 ngatcacaat catttaacan atttctgtgt tcctttctcat tcccactgct tcacttgact 1886
276 agccttaaaa aagcaacatg gaagccagg caaggtggt catgctgtg atccagcac 1840
277 ttttgaggac ctagacgggc ggatcaagg gtcaggagat caaaaacatc ctggctaaca 2000
278 cgtgaaaac ccactctctg taaaatatca aaaattagcc ggggtgtgtg gggggaccc 2060
279 gtagtccag ctacttggga pccacagggt ggagaatggt gtgaaacagg gaggggagc 2120
280 ttgcagtgat ccgagatcat ccactgcac tccagcctgg gngaaagagc gagactcccc 2180
281 gtctcaaaaa aaattttttt gaaaaattcg taaaaccatac ttttaagatt atttcaatgg 2240
282 atttttaaaa atcttgtaca gaatcagggt ttcttagcta gaggtttttc tcccagcag 2300

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```

178 tcaactgtaat ctgactatgt attgctagat tgaataagaa aataaaataa tatottotto 2366
180 ctgnaaaaaa aaaaaaa aaaaaaa aaaaaaa aaaaaaaagg 2415
184 <210> SEQ ID NO: 2
185 <211> LENGTH: 37
186 <212> TYPE: DNA
187 <213> ORGANISM: Artificial Sequence
188 <214> FEATURE:
189 <215> OTHER INFORMATION: Description of Artificial Sequence: Primer
190 <400> SEQUENCE: 3
191 tgaagagag gagaggetta acattacccc ggagcag 37
192 <210> SEQ ID NO: 4
193 <211> LENGTH: 37
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
196 <214> FEATURE:
197 <215> OTHER INFORMATION: Description of Artificial Sequence: Primer
198 <400> SEQUENCE: 4
199 gactagttaa atgacactg tctaaaggag aattctc 37
200 <210> SEQ ID NO: 5
201 <211> LENGTH: 22
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
204 <214> FEATURE:
205 <215> OTHER INFORMATION: Description of Artificial Sequence: Primer
206 <400> SEQUENCE: 5
207 caatgctagg tgggtctgg ct 22
208 <210> SEQ ID NO: 6
209 <211> LENGTH: 22
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
212 <214> FEATURE:
213 <215> OTHER INFORMATION: Description of Artificial Sequence: Primer
214 <400> SEQUENCE: 6
215 gacacaggt tggacagt gc 22
216 <210> SEQ ID NO: 7
217 <211> LENGTH: 26
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
220 <214> FEATURE:
221 <215> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
222 probe
223 <400> SEQUENCE: 7
224 tggagtcac gtaggatca cccatg 26

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/070,241B

DATE: 03/04/2003
TIME: 13:30:39

Input Set : A:\57132463.app
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 1827,1846,2371

VERIFICATION SUMMARYPATENT APPLICATION: **US/10/070,241B**

DATE: 03/04/2003

TIME: 13:30:39

Input Set : **A:\57132463.app**Output Set: **N:\CRF4\03042003\J070241B.raw**

L:119 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2
L:124 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2
L:129 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:1826
M:341 Repeated in SeqNo=2